WATER QUALITY

City of Santa Clara
The Center of What's Possible

Report contains water quality monitoring results

The City of Santa Clara is committed to providing you, the water consumer, with a safe and reliable supply of high quality drinking water. Each year we publish an annual water quality report known as the Consumer Confidence Report. This is the 27th annual report on water quality in Santa Clara and it contains the latest water quality monitoring results obtained through the end of calendar year 2014. It answers some of the most common water quality questions asked by our customers. We hope it will provide the facts and perspectives you need to make an informed evaluation of your tap water.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency and the State Water Resources Control Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The State Water Resources Control Board, Drinking Water Division regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Report fulfills federal, state regulations

This report has been prepared in accordance with the requirements of the Safe Drinking Water Act and State regulations. Although the water you receive is tested for more than 100 potential contaminants and 48 other parameters, the majority of the potential contaminants are never detected. To simplify the report, only the constituents that were detected in at least one water source appear in the water quality table on page 3. We are also required by the State to provide additional information about certain constituents that appear on the water quality table even though the water meets all applicable drinking water standards. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Santa Clara water comes from three sources

The City of Santa Clara has three separate sources of drinking water. Often, these sources are used interchangeably or are blended together. Altogether these sources provide an average of 18 million gallons of water per day to the homes, businesses, industries and institutions of Santa Clara. In 2014 about 29% of our water was treated surface water purchased from the Santa Clara Valley Water District, imported from the Sacramento-San Joaquin Delta, and from the San Francisco Public Utility Commission's Hetch-Hetchy System, imported from the Sierra Nevada Mountains. The remaining 71% is pumped from the City's system of 27 deep wells serving the rest of Santa Clara.

See map of water sources on page 2

Information for people with compromised immune systems

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as cancer patients undergoing chemotherapy, individuals who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Drinking water must meet standards

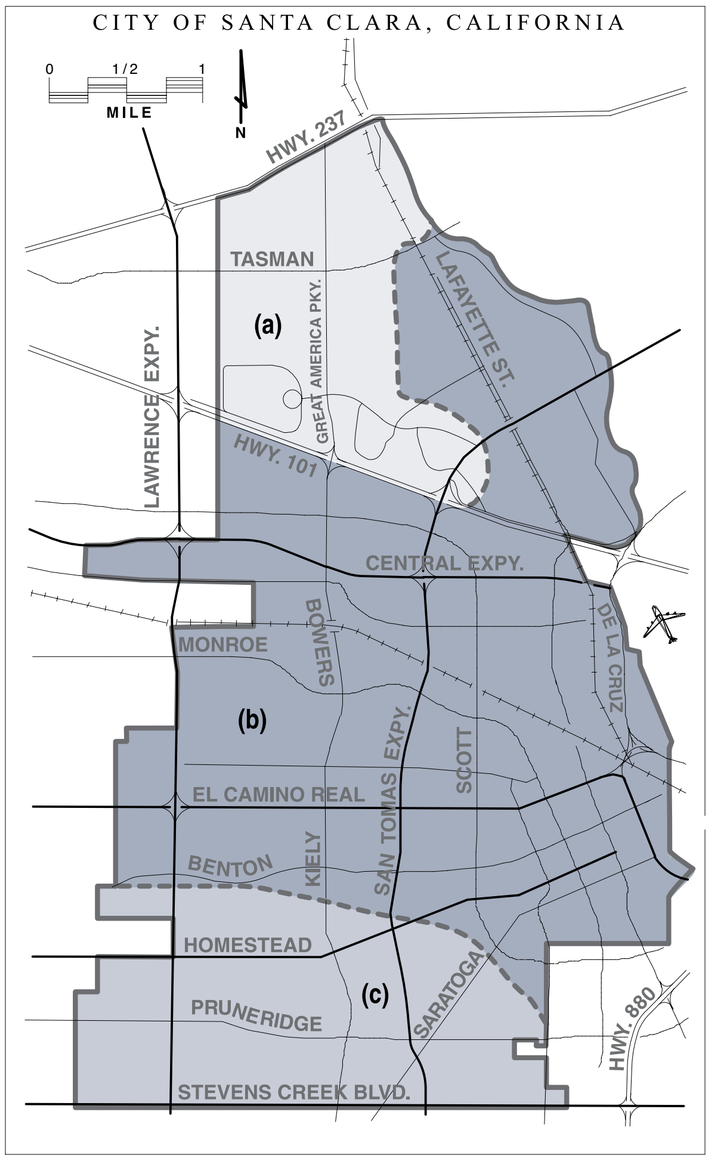
The quality of drinking water is carefully regulated by the federal government. In 1974, Congress passed the Safe Drinking Water Act, requiring the United States Environmental Protection Agency (USEPA) to establish uniform standards for drinking water. The Safe Drinking Water Act was further amended in 1986 and 1996, adding even more stringent standards. In California, these standards are enforced by the State Water Resources Control Board, Drinking Water Division.

There are two types of drinking water standards. **PRIMARY STANDARDS** are designed to protect public health. These standards specify the limits, called "Maximum Contaminant Levels" (MCLs) for substances in water that may be harmful to humans or affect their health if consumed in large quantities. **SECONDARY STANDARDS** are based on aesthetic qualities of water such as color, taste and odor. These standards specify limits for substances that may affect consumer acceptance of the water. Both Primary and Secondary Standards are listed in this report.

We take great pride in delivering the safest and highest quality water available.

It is important to the City of Santa Clara that you, the water consumer, have current and factual information about your water supply. In this latest issue of our report, we hope to further your understanding and strengthen your confidence in the quality and integrity of the water supplied to you by the City of Santa Clara. We take great pride in delivering the safest and highest quality water available.

If you have any questions about the information in this report, or if you want to participate in water quality related issues, please call the Water Utility at 408-615-2000.



(a) - SFPUC Hetch Hetchy System
(b) - City of Santa Clara Groundwater
(c) - SCVWD Treated Surface Water

Some City water is fluoridated

Fluoride is nature's cavity fighter. Fluoridation adjusts the naturally occurring fluoride in drinking water to the ideal level for protecting your teeth. Fluoridated drinking water benefits people of all ages by preventing tooth decay.

In November of 2005, the San Francisco Public Utilities Commission Hetch Hetchy system completed construction of a fluoridation facility in the East Bay. The water purchased by the City from the Hetch Hetchy system is fluoridated, while water from Santa Clara Valley District is not fluoridated.

If your zip code is 95054, you are in the area receiving fluoridated water. However, this area is also served by well water that has not been fluoridated. Refer to the map above that shows the area supplied with water from both the Hetch-Hetchy system and the City's wells. The majority of the City will continue to receive water without added fluoride.

State law requires the addition of fluoride to all water systems in California serving 10,000 customers or more. Fluoridation of the remaining water sources in the City would require installation of fluoride injecting equipment at each of the City's 27 active wells and at its treated water connection from the Santa Clara Valley Water District. The law includes a provision for state funds to finance this fluoridation equipment, but it may be some time before the state can provide funding to move forward with a fluoridation program for the remainder of the City.

For more information about fluoridation, visit the State Water Resources Control Board website: waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml

City wells

The majority of water consumed in the City of Santa Clara is pumped from the City's system of 27 deep wells. Well water is pulled up from groundwater – water that is located in aquifers (water-filled spaces between sand, gravel, silt and clay) deep in the ground. Aquifers are replenished by rainwater that infiltrates down from the land surface.

Hetch Hetchy system

The City purchases water from the Hetch Hetchy System. The San Francisco Public Utilities Commission actively protects the water resources entrusted to its care. Its annual update of Hetch Hetchy Watershed Sanitary Survey evaluates the sanitary conditions, water quality, potential contamination sources and the results of watershed management activities with partner agencies (such as the National Park Service and U.S. Forest Service). The San Francisco Public Utilities Commission also conducts sanitary surveys every five years to detect and track sanitary concerns for the Bay Area watersheds and the approved standby water sources in Early Intake Watershed, which includes Cherry Lake and Lake Eleanor. The latest five-year surveys were completed in 2011 for the period of 2006-2010. These surveys identified wildlife, stock and human activities as potential contamination sources. They are available for review at the California Department of Public Health San Francisco District office, 510-620-3474.

Santa Clara Valley Water District

The Santa Clara Valley Water District provides treated surface water to our water system from the Rinconada Water Treatment Plant, one of three water treatment plants the district operates. District surface water is mainly imported from the South Bay Aqueduct, Lake Del Valle and San Luis Reservoir which all draw water from the Sacramento - San Joaquin Delta watershed. The district's local water sources include Anderson and Calero Reservoirs.

Santa Clara Valley Water District's source waters are vulnerable to potential contamination from a variety of land use practices, such as agricultural and urban runoff, recreational activities, livestock grazing and residential and industrial development. Imported sources are also vulnerable to wastewater treatment plant discharges, seawater intrusion and wild land fires in open space areas. In addition, local sources are also vulnerable to potential contamination from commercial stables and historic mining practices. No contaminant associated with any of these activities has been detected in the district's treated water. The water treatment plants provide multiple barriers for physical removal of contaminants and disinfection of pathogens. For additional information, visit the Santa Clara Valley District website at valleywater.org.

City of Santa Clara Water Quality Table

	UNIT	MCL	State PHG/ Fed (MCLG)	analysis for City SC Well Water range	analysis for City SC Well Water average	analysis for SCVWater District range	analysis for SCVWater District average	analysis for HETCH HETCHY range	analysis for HETCH HETCHY average or [max]	Common Sources of:
PRIMARY STANDARDS FOR SOURCE WATER SAMPLING:										
MICROBIOLOGICAL										
giardia lamblia	cyst/L	TT	0	NA	NA	NA	NA	<0.01 - 0.04	<0.01	naturally present in environment
RADIOACTIVITY										
Gross Alpha	pCi/L	15	(0)	ND	ND	ND	ND	ND	ND	erosion of natural deposits
INORGANIC CHEMICAL										
Aluminum	PPM	1	0.6	ND	ND	ND	ND	ND	ND	natural deposits/treatment process
Arsenic	PPB	10	0.004	ND-4.8	0.5	ND	ND	ND	ND	erosion of nat'l deposit/runoff
Barium	PPM	1	2	0.08-0.15	0.12	ND	ND	ND	ND	erosion of nat'l deposit/oil drilling
Chromium	PPB	50	(100)	ND-3.3	1.1	ND	ND	ND	ND	erosion of nat'l deposit/plating
Fluoride	PPM	2	1	0.1-0.17	0.14	ND	ND	ND - 0.8	0.4	water additive/erosion of nat'l deposits
Nitrate (as NO_3)	PPM	45	45	1.7-29	15	ND	ND	ND	ND	erosion of nat'l deposit/runoff/leaching
Turbidity	NTU	5	NA	ND-0.44	0.16	0.06-0.08	0.07	0.2 - 0.6 [2]	[2.8][1]	soil runoff
PRIMARY STANDARDS AS MEASURED IN CITY OF SANTA CLARA DISTRIBUTION SYSTEM:										
MICROBIOLOGICAL										
Total Coliform	% pos (+)	5.00%	(0)	0-0.6%	<5%					naturally present in environment
DISINFECTION BYPRODUCTS, RESIDUALS, PRECURSORS										
Trihalomethanes	PPB	80	NA	0- 84[3]	[37.6]					byproduct of drinking water disinfection
Haloacetic Acids	PPB	60	NA	0-30	[16.7]					byproduct of drinking water disinfection
Chlorine residual	PPM	4	4	0.0-2.8	0.4					drinking water disinfectant
INORGANIC CHEMICAL as measured at 54 Residential Taps in 2013:										
Copper	PPM	AL = 1.3	0.3	90th percentile = 0.345 ppm		Number Exceeded = 0				corrosion of plumbing systems
Lead	PPB	AL = 15	0.2	90th percentile = 3.0 ppb		Number Exceeded = 0				corrosion of plumbing systems
SECONDARY STANDARDS: "CONSUMER ACCEPTANCE CONTAMINENT LEVELS"										
Aluminum	PPB	200	NA	ND	ND	ND	ND	ND	ND	natural deposits/treatment process
Color	UNITS	15	NA	ND	ND	<2.5	<2.5	ND	ND	naturally occuring organic material
Copper	PPM	1	NA	ND-0.003	ND	ND	ND	ND	ND	erosion of nat'l deposit/leaching
Iron	PPB	300	NA	ND-35	7	ND	ND	ND	ND	leaching from nat'l deposits/ind. waste
Manganese	PPB	50	NA	ND-13	2.6	ND	ND	ND	ND	leaching from natural deposits
Odor	UNITS	3	NA	ND-1	0.2	1-2	1	ND	ND	naturally occuring organic material
Tot.Dissolved Solids	PPM	1000	NA	330-450	386	360-540	424	31 - 120	81	runoff/leaching from natural deposits
Sp. Conductance	uS/cm	1600	NA	520-720	632	650-964	731	32 - 222	151	subst.forming ions/seawater intrusion
Chloride	PPM	500	NA	25-57	41	95-166	115	<3 - 15	9	runoff/leaching nat'l deposits/seawater
Sulfate	PPM	500	NA	40-61	46	56.4-111.0	76.7	0.9 - 32	17	runoff/leaching nat'l deposits/ind. waste

UNREGULATED CONTAMINANTS AS MEASURED IN CITY OF SANTA CLARA DISTRIBUTION SYSTEM:

		NOTIFICATION LEVEL		
Chlorodifluoromethane	PPB	NA	0 - 440	355
Chlorate	PPB	800	0 - 150	96.7
Chromium	PPB	NA	0 - 3.3	1.8
Molybdenum	PPB	NA	0 - 5	1.7
Strontium	PPB	NA	0.3 - 440	308.8
Vanadium	PPB	50	0.2 - 4.8	2.7

CONSUMER INFORMATION

pH	UNITS	NS	NS	7.0-8.1	7.4	7.6-7.8	7.7	6.9 - 10.2	9.3
Alkalinity (as CaCO3)	PPM	NS	NS	120-200	156	82-106	97	8 - 94	37
Hardness	PPM	NS	NS	140-320	244	130-178	149	7 - 77	46
Calcium (as Ca)	PPM	NS	NS	40-86	64.8	26-32	28	3 - 20	11
Sodium	PPM	NS	NS	23-59	31.2	<0.5-121	64	2.4 - 16	10
Magnesium	PPM	NS	NS	11-34	21	16-21	18	<0.2 - 6.4	3.9
Potassium	PPM	NS	NS	ND-1.3	1.2	3.2-4.7	3.8	0.2 - 1	0.6

[1] Turbidity is measured every four hours. These are monthly average turbidity values.
[2] The highest turbidity of the unfiltered Hetch Hetchy water in 2014 was 2.8 NTU.
[3] During the course of sampling for Disinfection Byproducts, one monitoring point resulted in an 84 PPB for Trihalomethanes, above the 80 PPB MCL. However, compliance is determined on a locational running annual average (LRAA) that is indicated as 37.6 PPB, which is below the 80 PPB MCL.

Definitions and Notes

Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

MAXIMUM CONTAMINANT LEVEL (MCL) = The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

MAXIMUM CONTAMINANT LEVEL GOAL (MCLG) = The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL) = The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL (MRDLG) = The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

PUBLIC HEALTH GOAL (PHG) = The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

REGULATORY ACTION LEVEL (AL) = The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

TREATMENT TECHNIQUE (TT) = A required process intended to reduce the level of a contaminant in drinking water.

UNREGULATED CONTAMINANTS = Unregulated contaminant monitoring helps EPA and State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

pCi/L = picocuries per liter (a measure of radioactivity)

PPM = Parts Per Million

PPB = Parts Per Billion

P = Present

A = Absent

<DLR = less than Detection Limit for Reporting

DISTRIBUTION SYSTEM = drinking water delivery system

RESIDENTIAL TAPS = household faucets used for lead and copper sampling

DISINFECTION BYPRODUCTS = chemical by products of disinfection

SECONDARY STANDARDS = secondary MCLs are set to protect the aesthetics of drinking water

NTU = Nephelometric Turbidity Unit. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality.

uS/cm = microSiemens per centimeter

NA = not applicable or available

ND = not detected

NS = no standard

Copper and Lead Tap Monitoring was performed in August 2013.

VANADIUM = the babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals

HARDNESS = the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.

SODIUM = refers to the salt present in the water and is generally naturally occurring.

ATTENTION

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Chi tiết này thật quan trọng.
Xin nhờ người dịch cho quý vị.

Attencion: Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entienda bien.

此份有關你的食水報告,內有重要資料和訊息,請找他人為你翻譯及解釋清楚。

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

이 안내는 매우 중요합니다.
본인을 위해 번역인을 사용하십시요.

यह सूचना महत्वपूर्ण है ।
कृपा करके किसी से :सका अनुवाद करायें ।

ਇਹ ਸੂਚਨਾ ਮਹਤੱਵਪੂਰਣ ਹੈ।
ਕ੍ਰਿਪਾ ਕਰਕੇ ਕਿਸੀ ਤੋ ਇਸ ਦਾ ਅਨੁਵਾਦ ਕਰਾਉ।

この報告書には上水道に関する重要な情報が記されております。翻訳を御依頼なされるか、内容をご理解なさっておられる方にお尋ね下さい。

Water Quality Monitoring

The City completed a Drinking Water Source Assessment and Protection Program (DWSAPP) for the groundwater sources in August 2002 and submitted to the State Board in December 2002. A copy of this program is available at the City's Water Utility offices at 1500 Warburton Ave. You may request a summary of the individual assessments by contacting the Water Utility at 408-615-2000 or by email at water@santaclaraca.gov.

The City's groundwater sources are considered most vulnerable to contamination in these ways: by leaking underground tanks containing fuel or dry-cleaning chemicals; old, unrecorded septic systems; storm drain dry wells located at various places around the City; many old, shallow, private wells, abandoned and not properly destroyed; and possibly some contaminants from a small landfill dump left over from the early years of the 20th century.

Lead

There have been no exceedances of the ACTION LEVEL for lead in the City of Santa Clara groundwater sources or supplies purchased from other agencies. It is possible for lead levels in your home to be higher than other homes in the community because of plumbing materials used in the original construction of your home. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Santa Clara is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components.

When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or on the website epa.gov/safewater/lead.

Nitrates

Nitrate in drinking water at levels above 45 mg/L is a health risk for infants less than six months old. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness. Symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask for advice from your health care provider.

Cryptosporidium and Giardia

Cryptosporidiosis is a disease of the intestinal tract brought on by a parasitic microbe (a protozoan) called Cryptosporidium. The disease is transmitted through contaminated water, food or direct contact with human or animal waste. If you are healthy with a normal immune system, the flu-like symptoms usually last about two weeks. Symptoms include diarrhea, stomach cramps, upset stomach and slight fever. However, immuno-compromised people, infants, small children and the elderly are at greater risk of developing life-threatening illness.

The water purchased by the City from the San Francisco Public Utilities Commission Hetch Hetchy system has been tested for Cryptosporidium and Giardia. The source waters and treated waters are tested at least monthly and occasionally show very low levels of Cryptosporidium in the waters serving the East Bay, South Bay and San Francisco Peninsula. Giardia, another parasitic organism causing similar symptoms, is monitored with the same frequency and very low levels are occasionally detected in the same source waters.

The general public is at very low risk and there have been no reported cases of Cryptosporidiosis and Giardiasis attributed to the City's public water supply. This advisory applies to water received from the Hetch Hetchy system in the area of the City north of Highway 101. The California Department of Public Health issues guidance for people with serious immune system problems. Currently, available guidance from the state and county health agencies recommends that people with such conditions consult with their doctor or primary health care provider about preventing Cryptosporidium and Giardia infection from all potential sources. Water consumers may choose to boil their drinking water at a rolling boil for at least one minute as an extra precaution.

For information about Cryptosporidiosis and Giardiasis, or copies of available guidance, contact the Santa Clara County Department of Environmental Health at 408-918-3400. You may also contact the USEPA Drinking Water Hotline at 1-800-426-4791 or visit the website water.epa.gov/drink/index.cfm.

What are the sources of tap water?

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water include:

- Microbial (microbiological) contaminants, such as viruses and bacteria, that may come from wildlife, agriculture and/or livestock operations, sewage treatment plants and septic systems
- Inorganic contaminants such as salts and metals, occurring naturally or resulting from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses
- Organic chemical contaminants, including synthetic and volatile organic chemicals. These are by-products of industrial processes, petroleum production, gas stations, urban stormwater runoff, agricultural chemical and fertilizer applications, and septic systems
- Radioactive contaminants, which can be naturally occurring or result from oil and gas production and mining

In order to ensure that tap water is safe to drink, the USEPA and the State Water Resources Control Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water hotline at 1-800-426-4791.

IMPORTANT CONTACT INFORMATION

City of Santa Clara
1500 Warburton Ave.
Santa Clara, CA 95050
408-615-2200
SantaClaraCA.gov

Water Utility
1500 Warburton Ave.
Santa Clara, CA 95050
Office hours: 8 a.m. – 5 p.m.,
Monday-Friday
408-615-2000

Water Billing Questions
408-615-2300

Water Quality Report Questions
Lisa Tulee
408-615-2010
ltulee@santaclaraca.gov

Water Emergencies
408-615-2000 Monday-Friday,
8 a.m.-5 p.m.
408-615-5640 other days
and times

Water Conservation
Save20gallons.org
408-630-2554 – Water Conservation Hotline and Rebate Information

Sign up for a free Water-Wise House Call from Santa Clara Valley Water District by calling 1-800-548-1882

Web Resources
If you would like to learn more about drinking water quality, treatment and regulation, contact these organizations:

American Water Works Association
awwa.org

State Water Resources Control Board, Division of Drinking Water waterboards.ca.gov/drinking_water/programs/index.shtml

United States Environmental Protection Agency
water.epa.gov/drink/index.cfm

San Francisco Public Utilities Commission, Water Quality Bureau
sfwater.org/index.aspx?page=163

Santa Clara Valley Water District
valleywater.org

Water Education Foundation
watereducation.org

Water Quality Information Center
nal.usda.gov/wqic

Public Input
To provide input on decisions that affect drinking water quality, you are welcome to provide input to the Santa Clara City Council at a Council meeting or in advance via mail, email or phone contact. A list of all City Council meetings, agenda items and study sessions can be viewed on the City website SantaClaraCa.gov.

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